

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
West Central Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Bassett Furniture Industries Inc.

Martinsville, Virginia

Permit No. 31013

Permit Date: December 20, 2001

Registration No. 31013

AIRS ID No. 51-089-0116

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Bassett Furniture Industries Inc. has applied for a Title V Operating Permit for its wood furniture manufacturing facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: _____ Date: December 20, 2001

FACILITY INFORMATION

Permittee

Bassett Furniture Industries, Inc.

P.O. Box 626

Bassett, Virginia 24055

Facility

Bassett Furniture Industries, Inc.
747 Beaver Creek Drive
Martinsville, Virginia 24112

SOURCE DESCRIPTION

SIC Code: 2511 – wood household furniture manufacturing

This is a small wood household furniture manufacturing facility. Wood tables are the primary product. The two major processes at the plant are wood-working operations and finishing operations. The plant receives dried sawn lumber, performs various woodworking and furniture assembly operations, and finishes the assembled furniture. Finishes are primarily spray booth applied HAP compliant VOC based wood furniture coatings. All wood dust emissions are controlled by fabric filters. Most heat is supplied by three natural-gas fired hot water heaters.

The facility is a Title V major source due to potential emissions of VOC exceeding 100 tons/yr and combined potential emissions of HAPs exceeding 25 tons/yr. This source is located in an attainment area for all pollutants. The facility was previously permitted under a NSR Permit issued on April 21, 2000. This permit was amended on September 20, 2001 to move the toxics conditions to a “state-only” section.

COMPLIANCE STATUS

The facility is inspected once a year and is currently in compliance.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

T-WW1 and T-WW2 Emission Source-Woodworking: All woodworking equipment with dust emissions, including hogging and material transfers. All wood dust emissions are controlled by fabric filters. Material collected from the fabric filters shall be controlled by a completely enclosed transfer system. The potential to emit for PM and PM-10 is 22 tons/yr. Because the permitted particulate limits of 24.2 tons per year for both PM and PM-10 are higher than the PTE the source is assured compliance with these limits.

T-FW1 Emission Source-Finishing: All finishing and related VOC emissions, primarily several spray booths, spray guns, and one wash tank. The rated capacity is 206 lbs VOC/hr. The wood furniture

MACT, 40 CFR 63 JJ, does apply to this facility. Overspray particulates are controlled by a filter media with a minimum control efficiency of 95%.

EMISSIONS INVENTORY

Emissions are summarized in the following tables.

1999 Actual Emissions from the Title V permit application

| Emission Unit | Criteria Pollutant Emission in Tons/Year | | | | |
|--|--|----|-----------------|------------------|-----------------|
| | VOC | CO | SO ₂ | PM ₁₀ | NO _x |
| T-WW1 and T-WW2 (wood- working) | - | - | - | 2.56 | - |
| T-FW1 (finishing operation) | 31.8 | - | - | 0.2 | - |
| Total | 31.8 | - | - | 2.76 | - |

1999 Facility Hazardous Air Pollutant Emissions

| Pollutant | Hazardous Air Pollutant Emission in Tons/Year |
|---------------------|---|
| Total HAPs | 2.6 |
| Toluene | 1.09 |
| Methyl Ethyl Ketone | 0.42 |

EMISSION UNIT APPLICABLE REQUIREMENTS – Woodworking T-WW1 and T-WW2

This equipment group includes all of this typical wood furniture plant's wood working processes and equipment, including hogging and material transfers. All wood dust emission sources are controlled by fabric filters. All subsequent transfer of collected material from the fabric filters is controlled by a

completely enclosed transfer system. There is no applicable NSPS. The wood furniture plant MACT does not apply to the woodworking materials and processes that are currently used at this plant.

Limitations

1. Particulate emissions from all particulate emission points for the woodworking equipment, including woodworking equipment, wood hogging, and material transfers, shall be controlled by fabric filters. All subsequent transfer of the collected material from the fabric filters shall be controlled by a completely enclosed transfer system. The filters shall be provided with adequate access for inspection. (9 VAC 5-80-110, Conditions 4 and 5 of 4/21/00 NSR Permit, and 9 VAC 5-50-260)
2. Visible emissions from the wood working equipment (T-WW1 and T-WW2), including wood working equipment, wood hogging, and material transfers shall not exceed 5 % opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-50-80, 9 VAC 5-80-110, and Condition 12 of 4/21/2000 NSR Permit)
3. Visible emissions from any fugitive emission points in the woodworking process shall not exceed 10 % opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 % opacity.
(9 VAC 5-50-80, 9 VAC 5-80-110, and Condition 13 of the 4/21/2000 NSR Permit)

4. Emissions from the operation of the woodworking equipment shall not exceed the limits specified below:

| | | |
|-----------------------------|--------------|--------------|
| Total Suspended Particulate | 0.01 gr/dscf | 24.2 tons/yr |
| PM-10 | 0.01 gr/dscf | 24.2 tons/yr |

(9 VAC 5-80-110 and Condition 11 of the 4/21/2000 NSR Permit)

Monitoring/Operation and Maintenance/Recordkeeping-Woodworking

1. All fabric filters shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The pressure drop shall be recorded weekly. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110)
2. Visible Emission Monitoring- At least once per week an observation for the presence of visible emissions from each woodworking equipment fabric filter shall be made. If visible emissions are observed, the permittee shall:
 - a. take timely corrective action such that the fabric filter resumes operation with no visible emissions, or,
 - b. perform a visible emissions evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the fabric filter does not exceed 5 (five) percent opacity. The VEE shall be conducted for a minimum of 6 (six) minutes. If any of the observations exceed 5 (five) percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the fabric filter resumes operation with a visible emissions of 5 (five) percent or less.
 - c. The permittee shall maintain a fabric filter observation log to demonstrate compliance. The log shall identify the emissions point and include the date and time of the observations, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action.
(9 VAC 5-80-110E)
3. Operation & Maintenance Procedures – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the air pollution control equipment and maintain records of inspection results.

- c. Have available written operating procedures for the air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.
- e. Maintain an inventory of spare parts that are needed to maintain the air pollution control equipment in proper working order.

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110, 9 VAC 5-80-110 F & K, 9 VAC 5-40-20E, 9 VAC 5-50-20)

- 4. Monthly and annual number of square feet of wood table tops, calculated monthly as the sum of each consecutive twelve (12) month period.
- 5. Records as required by the monitoring conditions for this emission group (including control device inspections and corrective actions, pressure drop across fabric filters, and visible emissions observations.
- 6. Title V periodic monitoring to assure meeting the particulate emission limits is satisfied by the periodic monitoring that assures good baghouse operation and maintenance, periodic inspections and recordkeeping, and periodic visible emission observations to assure that the 5% opacity requirements are met and the air handling system capacity is not increased.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 17 of the 4/21/2000 NSR)

Testing-Woodworking

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine

compliance with an emission limit or standard.

Reporting-Woodworking

Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively.

EMISSION UNIT APPLICABLE REQUIREMENTS-Wood Finishing-Ref. T-FW1

This group includes all finishing in the plant. It consists mostly of several spray booths, a wash off tank, and spray guns to apply VOC based coatings. It includes all finishing related VOC emissions. 40 CFR 63 Subpart JJ, the wood furniture MACT, does apply. The plant's primary method for meeting the MACT currently is to use only MACT compliant coatings where required.

Limitations

1. Particulate emissions from each finishing spray booth shall be controlled by filter media designed for a minimum control efficiency of 95%. The filter media shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 3 of the 4/21/2000 NSR Permit and 9 VAC 5-50-260)
2. Visible emissions from the finishing line spray booth exhausts shall not exceed 5% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-50-80, 9 VAC 5-80-110 and Condition 12 of the 4/21/2000 NSR Permit)

3. Emissions from the operation of the finishing line spray booths and wash off tank shall not exceed the limits specified below:

| | | |
|-----------------------------|------------|-------------|
| Total Suspended Particulate | 1.0 lbs/hr | 1.3 tons/yr |
| PM-10 | 1.0 lbs/hr | 1.3 tons/yr |
| Volatile Organic Compounds | 206 lbs/hr | 248 tons/yr |

(9 VAC 5-50-260, 9 VAC 5-80-110 and Condition 8 of the 4/21/2000 NSR Permit)

Monitoring/Operation and Maintenance/Recordkeeping

1. Visible Emission Monitoring- At least once per week an observation for the presence of visible emissions from the finishing spray booth stacks shall be made. If visible emissions are observed, the permittee shall:
 - a. take timely corrective action such that the spray booth resumes operation with no visible emissions, or,
 - b. perform a visible emissions evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the fabric filter does not exceed 5 (five) percent opacity. The VEE shall be conducted for a minimum of 6 (six) minutes. If any of the observations exceed 5 (five) percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the fabric filter resumes operation with a visible emissions of 5 (five) percent or less.
 - c. The permittee shall maintain a finishing observation log to demonstrate compliance. The log shall identify the emissions point and include the date and time of the observations, whether or not there were visible emissions, any VEE recordings, and any necessary corrective action.
(9 VAC 5-80-110E)
2. Operation & Maintenance Procedures – The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment and process equipment which affect such emissions:
 - a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
 - b. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the air pollution control equipment and maintain records of inspection results.
 - c. Have available written operating procedures for the air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
 - d. Train operators in the proper operation of all air pollution control equipment and familiarize the operators with the written operating procedures. The permittee shall

maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

- e. Maintain an inventory of spare parts that are needed to maintain the air pollution control equipment in proper working order.

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

(9 VAC 5-80-110, 9 VAC 5-80-110 F & K, 9 VAC 5-40-20E, 9 VAC 5-50-20E)

- 3. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:
 - a. Monthly and annual throughput of VOC and PM. Annual throughput shall be calculated monthly as the sum of each consecutive twelve (12) month period.
 - b. Hours of operation of the finishing line spray booths.
 - c. Monthly and annual emissions of VOC and PM emissions in tons. The annual quantities shall be calculated monthly as the sum of each consecutive twelve (12) month period. The emission factors and emission calculation equations used in the emission calculations shall be identified and readily available.
 - d. Records as required by the rest of this Monitoring and Recordkeeping section.

Testing

The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the monitoring specified in the permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

| Pollutant | Test Method (40 CFR Part 60, Appendix A) |
|-----------|---|
| VOC | EPA Methods 18, 25, 25a |

| | |
|----------|------------------|
| PM/PM-10 | EPA Method 5, 17 |
|----------|------------------|

(9 VAC 5-80-110)

Reporting

Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively.

EMISSION UNIT APPLICABLE REQUIREMENTS- Facility Wide Conditions-1-40 CFR 63 Subpart JJ (Wood Furniture MACT)

This MACT is applicable to the plant. The plant is in compliance with the MACT. A facility wide condition requires the source to meet this MACT. Selected portions of the MACT (totaling several pages) are included in this permit. For the materials and processes currently used at this plant, the principal portion of the MACT that is applicable to this facility concerns VHAPS in the finishing operation. The plant's principal way of meeting the MACT is to normally use only MACT compliant coatings.

Streamlined Requirements

Streamlining 1: T-WW1 and T-WW2: Wood working –visible emissions. 9 VAC 4-50-80 limiting new process visible emissions to 20 % except for 30% during one six minute period per hour for any new equipment is streamlined to the stricter NSR permit limit of 5% except for 30% during one six minute period per hour. (9 VAC 5-50-260, BACT)

Streamlining 2: T-FW1: Finishing-visible emissions 9 VAC 4-50-80 limiting new process visible emissions to 20% except for 30% during one six minute period per hour for any new equipment is streamlined to the stricter NSR permit limit of 5% except for 30% during one six minute period per hour. (9 VAC 5-50-260, BACT)

Streamlining 3: The conditions in the NSR permit are streamlined out which deal with new equipment installation time frames, startup initial notifications, and initial visible emissions evaluations and initial stack testing because these conditions are obsolete due to having been completed for all permitted equipment.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply

to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within four daytime business hours.

STATE ONLY APPLICABLE REQUIREMENT

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

9 VAC 5-50-320, Toxic Pollutants The 4/21/2001 New Source Review permit was amended to create a state-only section to address toxics.

FUTURE APPLICABLE REQUIREMENTS

NA

INAPPLICABLE REQUIREMENTS

NA

COMPLIANCE PLAN

NA because this facility is considered to be in compliance

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

| Emission Unit No. | Emission Unit Description | Citation ¹ (9 VAC_) | Pollutant Emitted (5-80-720 B.) | Rated Capacity (5-80-720 C.) |
|--------------------|---------------------------|-----------------------------------|--|----------------------------------|
| BLR 3, 4, and 5 | Three Boilers | 9 VAC 5-80-720 | CO, SO ₂ , VOC, TSP, PM-10, NO _x | 1.8 MMBtu/hr |
| F101, F103, | Six drying ovens | 9 VAC 5-80-720 | CO, SO ₂ , VOC, | 0.8-0.9 |

| | | | | |
|---------------------------------|--------------------------|-----------------|--------------------------------|---------------|
| F105, F107, F110, F112 | | | TSP, PM-10, NO _x | MMBtu/hr/unit |
| T-WW2 | Assembling Operations | 9 VAC 50-80-720 | VOC | NA |

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit was placed on public notice in the Martinsville Bulletin on August 26, 2001. The public comment period ended September 25, 2001. The only comments received were from EPA.